In claims 153 and 154, change "composition" in line 1 to --complex--.

Rewrite claim 155 as follows:

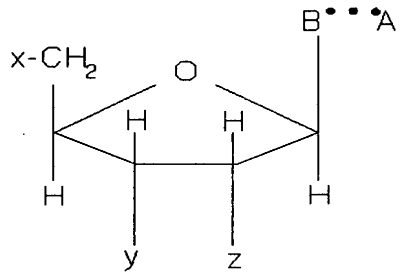
--~~155.~~ (amended) A complex [composition] according to claim ~~170~~ [Claim 147] wherein said ligand is selected from the group consisting of biotin, [or] iminobiotin, or a cofactor.--

In claims 158 and 159, change "composition" to --complex-- and "Claim 101" to --claims 164 or 167--.

In claims 160 and 161, change "composition" to --complex-- and "Claim 156" to --claims 164 or 167--.

Add new claims 164-174 as follows:

~~164.~~ (new) A complex useful as a probe for detecting the presence or absence of a nucleic acid, said complex comprising a detectable polypeptide complexed with a compound having the structure:



wherein B represents a purine, 7-deazapurine, or pyrimidine moiety suitable for incorporation into a polynucleotide and covalently bonded to the C$^{1'}$-position of the sugar moiety, provided that when B is a purine or 7-deazapurine, the sugar moiety is attached at the N^{9}-position of the purine or deazapurine, and when B is pyrimidine, the sugar moiety is attached at the N^{1} position of

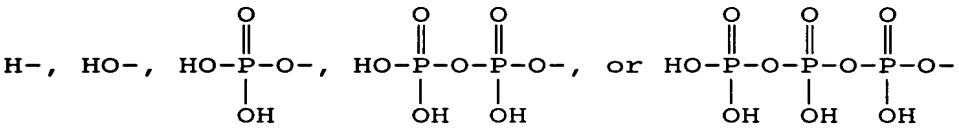
the pyrimidine;

wherein A represents at least three carbon atoms, is capable of specifically complexing with the detectable polypeptide when A is linked to B, and represents a component of a signalling moiety capable of producing a detectable signal;

wherein B and A are covalently attached directly or ~~indirectly~~ through a linkage group, said linkage group not interfering substantially with the characteristic ability of A to form said complex with the detectable polypeptide;

wherein if B is a purine, A is attached to the 8-position of the purine, if B is a 7-deazapurine, A is attached to the 7-position of the deazapurine, and if B is a pyrimidine, A is attached to the 5-position of the pyrimidine; and

wherein each of x, y and z represents:

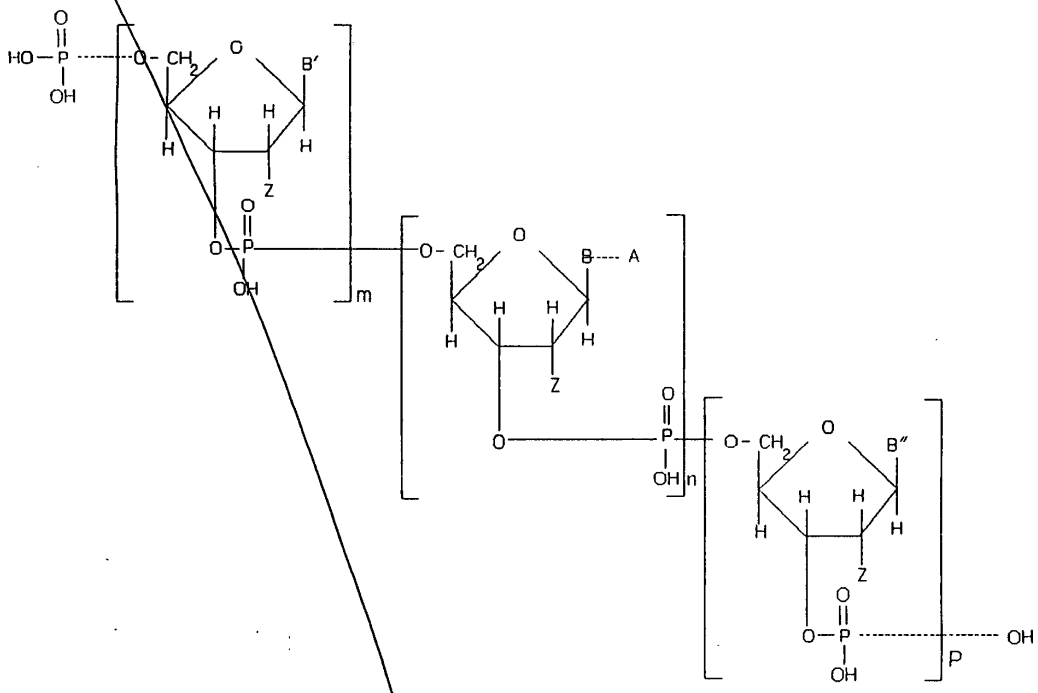


~~165.~~ (new) A complex in accordance with claim ~~164~~ wherein said detectable polypeptide is linked to an indicator molecule selected from the group consisting of fluorescent dyes, electron-dense reagents, enzymes which can be reacted with a substrate to produce a visually detectable reaction product, and radioisotopes.

~~166.~~ (new) A complex in accordance with claim ~~165~~ wherein said detectable polypeptide is a fluorescent dye, electron dense reagent, or enzyme which can be reacted with a substrate to produce a visually detectable reaction product.

167. (new) A complex useful as a probe for detecting the presence or absence of a nucleic acid, said complex comprising a detectable polypeptide complexed with a compound having the

structure:



wherein each of B, B′, and B" represents a purine, 7-deazapurine, or pyrimidine moiety covalently bonded to the C$^{1'}$-position of the sugar moiety, provided that whenever B, B′, or B" is purine or 7-deazapurine, the sugar moiety is attached at the N^9-position of the purine or deazapurine, and whenever B, B′, or B" is a pyrimidine, the sugar moiety is attached at the N^1-position of the pyrimidine;

wherein A represents at least three carbon atoms, is capable of specifically complexing with the detectable polypeptide when A is linked to B, and represents a component of a signalling moiety capable of producing a detectable signal;

wherein B and A are covalently attached directly or indirectly through a linkage group, said linkage group not interfering substantially with the characteristic ability of A to form said complex with the detectable polypeptide;

wherein if B is a purine, A is attached to the 8-position of the purine, if B is a 7-deazapurine, A is attached to the 7-position of the deazapurine, and if B is a pyrimidine, A is attached to the 5-position of the pyrimidine;

wherein m, n, and p are integers, provided that m and p are not simultaneously 0 and provided further that n is never 0; and

wherein z represents H or HO.

7 ~~168.~~ (new) A complex in accordance with Claim ~~169~~ 6 wherein said detectable polypeptide is linked to an indicator molecule selected from the group consisting of fluorescent dyes, electron-dense reagents, enzymes which can be reacted with a substrate to produce a visually detectable reaction product, and radioisotopes.

I 28 ~~169.~~ (new) A complex in accordance with claim ~~168~~ 7 wherein said detectable polypeptide is a fluorescent dye, electron dense reagent, or enzyme which can be reacted with a substrate to produce a visually detectable reaction product.

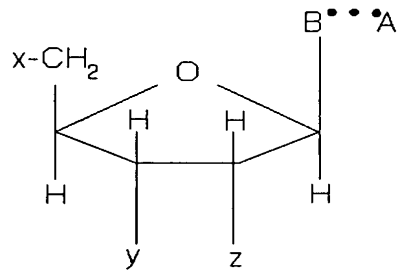
9 ~~170.~~ (new) A complex in accordance with claims ~~164~~ 3 or ~~167~~ 6 wherein A is a ligand.

11 ~~171.~~ (new) A complex in accordance with claim ~~170~~ 9 wherein said ligand is selected from the group consisting of antigens, antibodies and haptens.

12 ~~172.~~ (new) A complex in accordance with claim ~~171~~ 11 wherein said ligand is dinitrophenol.

1 ~~173.~~ (new) A compound useful as a probe for detecting the presence or absence of a nucleic acid, said compound having the structure:

61



wherein B represents a purine, 7-deazapurine, or pyrimidine moiety suitable for incorporation into a polynucleotide and covalently bonded to the C$^{1'}$-position of the sugar moiety, provided that when B is a purine or 7-deazapurine, the sugar moiety is attached at the N^{9}-position of the purine or deazapurine, and when B is pyrimidine, the sugar moiety is attached at the N^{1} position of the pyrimidine;

wherein A represents at least three carbon atoms and an indicator molecule selected from the group consisting of fluorescent dyes, electron-dense reagents, enzymes which can be reacted with a substrate to produce a visually detectable reaction product, and radioisotopes;

wherein B and A are covalently attached directly or ~~indirectly~~ through a linkage group, said linkage group not interfering substantially with detection of A;

wherein if B is a purine, A is attached to the 8-position of the purine, if B is a 7-deazapurine, A is attached to the 7-position of the deazapurine, and if B is a pyrimidine, A is attached to the 5-position of the pyrimidine; and

wherein each of x, y and z represents:

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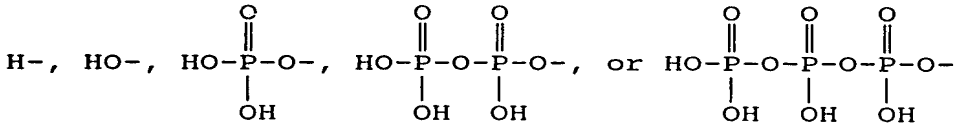

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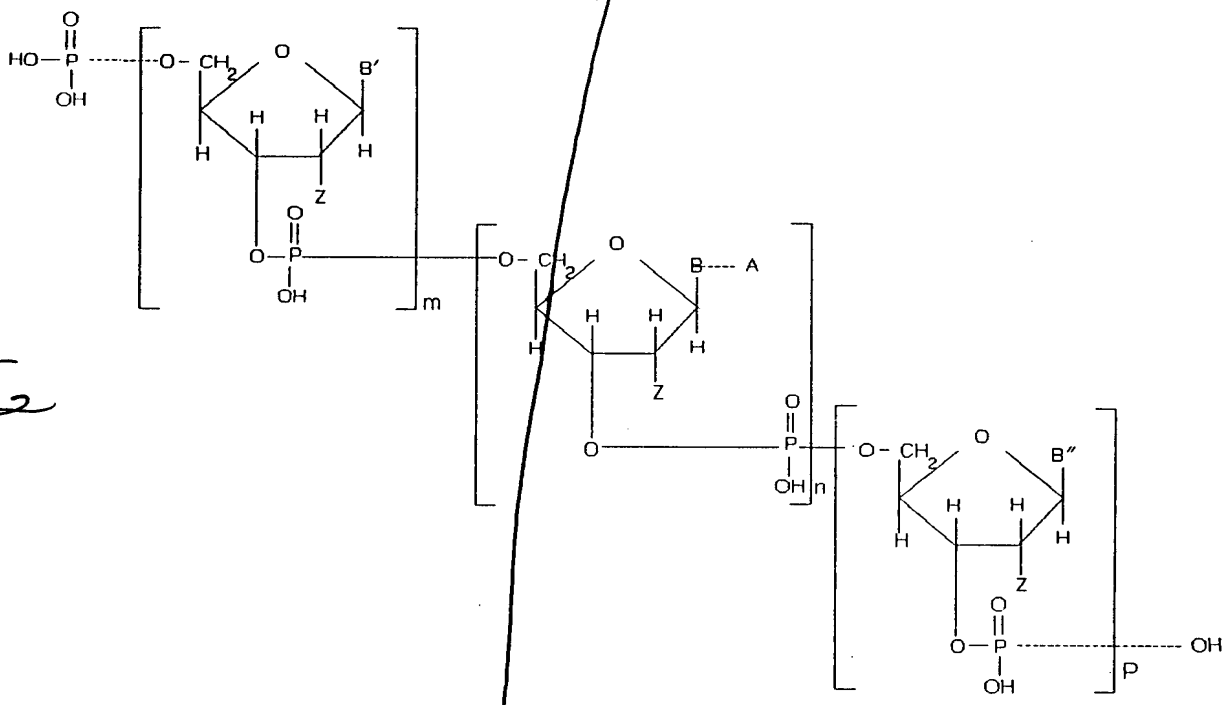
174. (new) A compound useful as a probe for detecting the presence or absence of a nucleic acid, said compound having the structure:



wherein each of B, B′, and B" represents a purine, 7-deazapurine, or pyrimidine moiety covalently bonded to the C^{1}′-position of the sugar moiety, provided that whenever B, B′, or B" is purine or 7-deazapurine, the sugar moiety is attached at the N^{9}-position of the purine or deazapurine, and whenever B, B′, or B" is a pyrimidine, the sugar moiety is attached at the N^{1}-position of the pyrimidine;

wherein A represents at least three carbon atoms and an indicator molecule selected from the group consisting of

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63

fluorescent dyes, electron-dense reagents, enzymes which can be reacted with a substrate to produce a visually detectable reaction product and radioisotopes;

wherein B and A are covalently attached directly or indirectly through a linkage group, said linkage group not interfering substantially with detection of A;

wherein if B is a purine, A is attached to the 8-position of the purine, if B is a 7-deazapurine, A is attached to the 7-position of the deazapurine, and if B is a pyrimidine, A is attached to the 5-position of the pyrimidine;

wherein m, n, and p are integers, provided that m and p are not simultaneously 0 and provided further that n is never 0; and

wherein z represents H or HO.

REMARKS

The present application had claims 101-103, 110-112, 138, 148, and 152-163 pending. Applicants have hereinabove cancelled claims 101-103, 110-112, 138, 148, 156, 157, 162 and 163, amended claims 152-155, and 158-161 and added new claims 164-174. Accordingly, claims 152-155, 158-161 and 164-174 are now pending in the application and are under consideration.

New claims 164-169 correspond to cancelled claims 101-103 and 110-112 and are directed to the same subject matter. New claims 173 and 174 correspond to cancelled claims 156 and 157. Upon review of the prosecution conducted in the present application and in its parents, applicants discovered several errors and inconsistencies in the prior amendments to claims 101-103 and 110-112. To avoid confusion over the precise claim language before the Patent Office, applicants have cancelled claims 101-103 and 110-112 and independent claims 156 and 157, and present new claims 164-169 and 173-174 in their place. No issue of new matter is raised by the addition of these claims.